

### Abstract

An integrated sensor device having a structure suited for mass production despite of a short lifetime and automatically replaceable, and a measuring system realizing a continuous monitoring at a low cost by using the integrated sensor device are disclosed. The integrated sensor device is constructed into a signal integrated circuit device comprising a sensor unit (6) for measuring a change in the quantity or concentration of a substance; a control unit (7) for processing a signal representing the measurement result; and an antenna unit (10) for transmitting the processed signal to the outside and for receiving an energy necessary for the transmission and the operations of the sensor unit (6) and the control unit (7).

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